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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,454	11/28/2000	Yoichi Ando	35.C14179	4782

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EXAMINER

SANTIAGO, MARICELI

ART UNIT PAPER NUMBER

2879

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/722,454

Applicant(s)

ANDO ET AL.

Examiner

Mariceli Santiago

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-101 is/are pending in the application.
- 4a) Of the above claim(s) 22-78 and 81-101 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 19-21, 79 and 80 is/are rejected.
- 7) ☒ Claim(s) 2-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-21, 79 and 80 in Paper No. 11 is acknowledged.

Drawings

The drawings corrections were received on December 26, 2000. These drawings are approved by the Examiner.

Figures 93-97 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20, 21 and 79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "said electron beam" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "said electrode" in lines 4, 6 and 8. There is insufficient antecedent basis for this limitation in the claim.

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Claim 21 recites the limitation "the capacitor" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "said electrically conductive thin film" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Claim 79 is rejected for the reason given in the rejection of claim 21 above, because of its dependency status from claim 21.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 79 and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishimura et al. (US 5,853,310).

Regarding claim 79, Nishimura discloses an electron beam device wherein an electron beam device in which electron emission portions (Fig. 1B) that emits electrons and wirings that electrically connect the electron emission portions are disposed on a substrate (1). The Examiner notes that the Applicant is claiming the product of an electron beam device including a method (i.e. a process) of making the electron beam device, consequently, claim 79 is considered a "product-by-process" claim. In spite of the fact that a product-by-process claim may recite only process limitations, it is the product and not the recited process that is covered

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by the claim. Further, patentability of a claim to a product does not rest merely on the difference in the method by which the product is made. Rather, is the product itself which must be new and not obvious (see MPEP 2113). Accordingly, Nishimura teaches the claimed invention as evidenced by Nishimura's suggestion of all of the Applicant's claimed structural limitations.

Regarding claim 80, Nishimura discloses an image forming apparatus (Fig. 4) that includes an electron source in which a plurality of electron source elements each having a pair of element electrodes (4, 5) formed on a substrate (1), an electrically conductive thin film (3) which are electrically connected to each of the elements electrodes (4, 5), and an electron emission portion (2) formed on a part of the electrically conductive thin film are formed on the same substrate (1), and the element electrodes of the respective electron source elements are connected in the form of a ladder or a matrix by wirings, and an image forming member (54) disposed opposite to the electron source on the substrate. The Examiner notes that the Applicant is claiming the product of an electron beam device including a method (i.e. a process) of making the electron beam device, consequently, claim 80 is considered a "product-by-process" claim. In spite of the fact that a product-by-process claim may recite only process limitations, it is the product and not the recited process that is covered by the claim. Further, patentability of a claim to a product does not rest merely on the difference in the method by which the product is made. Rather, is the product itself which must be new and not obvious (see MPEP 2113). Accordingly, Nishimura teaches the claimed invention as evidenced by Nishimura's suggestion of all of the Applicant's claimed structural limitations.

Claims 1, 19, 20, 79 and 80 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirochi (US 6,306,001)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

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102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 79, Hirochi discloses a method of manufacturing an electron beam device (Figs. 3A-3D) in which electron emission portions that emit electrons and wirings that electrically connect the electron emission portions are disposed on a substrate, the method characterized by comprising a wiring forming step of forming the wiring on the substrate, wherein an electric field applying process of applying a given electric field to the substrate on which the wiring is formed is conducted after the wiring forming step is completed and before the electron emission portion forming process is completed (Column 7, lines 28-67 through Column 8, lines 1-20).

Regarding claim 19 and 80, Hirochi discloses a method of manufacturing an image forming apparatus (Figs. 3A-3D) that includes an electron source in which a plurality of electron source elements each having a pair of element electrodes formed on a substrate, an electrically conductive thin film which are electrically connected to each of the element electrodes, and an electron emission portion formed on a part of the electrically conductive thin film are formed on the same substrate, and the element electrodes of the respective electron source elements are connected in the form of a ladder or a matrix by wirings, and an image forming member disposed opposite to the electron source on the substrate, the method characterized by comprising an electric field applying step of applying a given electric field to the substrate on which the wirings are formed, after a step of forming the wirings is completed and before a step of forming the electron emission portions is completed (Column 7, lines 28-67 through Column 8, lines 1-20).

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Regarding claim 20, Hirochi discloses a method characterized in that a control electrode which controls an electron beam emitted from the respective electron source elements in response to an information signal is combined (Column 7, lines 28-67 through Column 8, lines 1-20).

Allowable Subject Matter

Claims 2-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (703) 305-1083. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382. Additionally, the following fax phone numbers can be used during the prosecution of this application (703) 872-9318 (for response before a Final Action) and (703) 872-9319 (for response after a Final Action).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

9/23/03
Mariceli Santiago
Patent Examiner
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Kenneth J. Ramsey
KENNETH J. RAMSEY
PRIMARY EXAMINER